

VAN DE NIEUWELAAR et al. -- 10/665,351
Client/Matter: 081468-0305843

REMARKS

Claims 1 and 3-17 are pending. By this Amendment, the specification is amended; claim 2 is cancelled without prejudice or disclaimer and claims 1 and 3-4, 6 and 7 are amended. Reconsideration in view of the above amendments and following remarks is respectfully requested.

Claim 1 recites a lithographic projection apparatus including a first substrate table configured to hold a first substrate and a second substrate table configured to hold a second substrate. The apparatus further includes a first station at which measurement of the first and second substrates may be performed and a second station at which the first and second substrates may be exposed. A displacement measuring system is configured to measure displacements of the first and second substrate tables in the first and second stations. A planar motor is configured to independently transfer the first and second substrate tables between the first and second stations. A radiation system associated with the second station is configured to provide a beam of radiation and a support is configured to support a patterning device to pattern the beam according to a desired pattern. A projection system is configured to project the patterned beam onto a target portion of the first and second substrates when the first and second substrates are at the second station, respectively. The displacement measuring system is configured to continuously measure displacements of the first and second substrate tables and at least two directions during the transfer between the first and second stations.

Claim 6 recites a device manufacturing method including locating a first substrate at least partially covered by a layer of radiation-sensitive material on a first substrate table in a first station. The first station is a station in which measurement of the first substrate may be conducted. The method further includes locating a second substrate at least partially covered by a layer of radiation-sensitive material on a second substrate table in a second station. The second station is a station in which the second substrate may be exposed. The method further includes measuring displacements of the first and second tables in the first and second stations, respectively, providing a beam of radiation using a radiation system, using a patterning device to endow the beam with a pattern in its cross-section, and projecting the pattern beam of radiation onto a target portion of the layer of radiation-sensitive material while the second substrate is in an exposure position in the second station. The method further includes transferring the second substrate table out of the second station and

VAN DE NIEUWELAAR et al. -- 10/665,351
Client/Matter: 081468-0305843

independently transferring the first substrate table from the first station to the second station using a planar motor and continuously measuring displacements of the first substrate table during transferring.

Claims 1-17 were rejected under 35 U.S.C. §102(b) over Taniguchi et al. (EP 1041357 A1). The rejection is respectfully traversed.

Taniguchi et al. disclose two embodiments of a stage device and exposure apparatus. The first embodiment is shown in Figures 1-4 and the second embodiment is shown in Figures 5-12. In the first embodiment, a single wafer stage WST is provided on a surface table 13 and is movable by a planar motor. See column 17, lines 2-6. A measurement stage 14 including a second measurement system 17B is also provided on the surface table for measuring the position of a wafer W with respect to the wafer table WST. The first embodiment of Taniguchi et al., however, does not disclose or suggest first and second wafer tables, nor does it disclose or suggest that the planar motor is configured to independently transfer first and second wafer tables between first and second stations. Accordingly, the first embodiment of Taniguchi et al. does not anticipate claims 1 and 6.

The second embodiment of Taniguchi et al., shown in Figures 5-12, discloses first and second wafer tables WST1 and WST2. However, as shown in Figure 7 of Taniguchi et al., the wafer tables WST1 and WST2 are movable on movable members 93A-93D on linear guides 94A, 94B, 95A, 95B. Although Taniguchi et al. disclose in column 25, line 1, independently driving the wafer tables WST1 and WST2 over the XY plane, Taniguchi et al. do so by the use of the linear guides, not by the use of a planar motor, as recited in claims 1 and 6. Accordingly, the second embodiment of Taniguchi et al. cannot anticipate claims 1 and 6.

There is also no suggestion by Taniguchi et al. of independently transferring first and second wafer stages or tables independently between first and second stations using a planar motor. Taniguchi et al. suggest achieving independent transfer of first and second wafer tables or stages using linear guides. Accordingly, Taniguchi et al. cannot render obvious claims 1 and 6.

Claims 3-5 and 7-17 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1 and 6 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-17 over Taniguchi et al. are respectfully requested.

VAN DE NIEUWELAAR et al. -- 10/665,351
Client/Matter: 081468-0305843

Claims 1-3 and 5-17 were rejected under 35 U.S.C. §102(b) over Kwan et al. (U.S. Patent Application Publication 2001/0004105 A1). The rejection is respectfully traversed.

There is no disclosure or suggestion by Kwan et al. of a planar motor, nor is there any disclosure or suggestion by Kwan et al. of independently transferring first and second wafer tables or stages between first and second stations using a planar motor, as recited in claims 1 and 6. Kwan et al. clearly disclose that the wafer tables are transferred by using the cable shuttles CS1 and CS2 and the X-sliders 1 and 22, 132 and the Y-sliders 123, 124, 133, 134. Accordingly, Kwan et al. cannot anticipate or render obvious claims 1 and 6.

Claims 3 and 6-17 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1 and 6 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-3 and 5-17 over Kwan et al. are respectfully requested.

Claims 1-17 were rejected under 35 U.S.C. §102(b) over Lin (U.S. Patent 5,715,064). The rejection is respectfully traversed.

There is no disclosure or suggestion by Lin of independently transferring first and second wafer tables or stages between first and second stations, as recited in claims 1 and 6. As disclosed in column 3, lines 65 and column 4, line 8, the chucks 102 and 104 of Lin are operated in lockstep with each other. Accordingly, Lin cannot anticipate or render obvious claims 1 and 6.

Claims 3-5 and 7-17 recite additional features of the invention and are allowable for the same reasons discussed above with respect to claims 1 and 6 and for the additional features recited therein.

Reconsideration and withdrawal of the rejection of claims 1-17 over Lin are respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all the claims are allowable and that the entire application is in condition for allowance.

VAN DE NIEUWELAAR et al. -- 10/665,351
Client/Matter: 081468-0305843

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

PILLSBURY WINTHROP LLP



JOHN P. DARLING

Reg. No. 44482

Tel. No. (703) 905-2045

Fax No. (703) 905-2500

Date: September 29, 2004

P.O. Box 10500
McLean, VA 22102
(703) 905-2000